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DEVICE FOR INITIALIZING STORAGE MEDIUM

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MEDIUM

Specification

1. Title of the invention

Device for Initializing Storage Medium

2. Claim

1. A device for initializing a storage medium, characterized by being equipped with an input means into which an initialization designating signal is input; an initialization means for initializing a storage medium loaded at a position to be designated, which corresponds to the above-mentioned initialization designating signal, to a prescribed format; a discharge means for discharging the storage medium from the above-mentioned position to be designated; a detection means for detecting the existence of the storage medium at the above-mentioned position to be designated; and a control means which operates the above-mentioned discharge means at the time of the input of the above-mentioned initialization designating signal and implements an initialization processing of the above-mentioned initialization means when reloading of the storage

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<sup>1</sup> Numbers in the margin indicate pagination in the foreign text.

medium into the position to be designated is detected from the above-mentioned detection means.

### 3. Detailed explanation of the invention

(Industrial application field)

The present invention pertains to a device for initializing a storage medium being installed in computer terminal equipment, etc., in which an exchangeable storage medium such as floppy disk or photomagnetic disk is loaded.

(Prior art)

In the above-mentioned computer terminal equipment, etc., when data in a prescribed storage medium are not required at all, a user operates an initialization designation, so that a process for initializing the storage medium to a prescribed format is implemented, thereby collectively deleting unnecessary data.

(Problems to be solved by the invention)

However, in case the user operates the initialization designation as mentioned above, since all the data on the storage medium are instantly deleted by the initialization processing, the insecurity of a wrong initialization of the storage medium is caused. Therefore, it is necessary to sufficiently confirm whether or not errors exist in the

designation. For example, in a device which is equipped with various disk drives and into which the storage medium is loaded in each of these disk types, it is necessary to sufficiently /2 confirm whether or not the storage medium to be initialized is loaded into a certain disk drive, to select the disk drive into which the storage medium to be initialized is loaded, and to designate and input the number. However, after a lapse of a certain degree of time from the loading time of the storage medium, the correspondence relation in which the storage medium to be initialized is loaded into a certain disk drive is not necessarily distinct, and for this reason, a work that leaves recording during loading, searches for the recording, and confirms it is required.

Also, in the device equipped with only one unit of disk drive, for example, in case the initialization of a prescribed storage medium is required during arithmetic processing, etc., while sequentially replacing several storage media, whether or not the storage medium into which the disk drive is loaded is the same as the storage medium to be initialized cannot be easily confirmed, and the loaded storage medium is required to be confirmed by a work for investigating all the other storage media that are not loaded into the disk drive, etc., so that the confirmation work is complicated.

The present invention considers the above-mentioned conventional problems and provides a device for initializing a storage medium that can prevent an erroneous operation of the initialization and can improve the workability at that time.

(Means to solve the problems)

Accordingly, the device for initializing a storage medium of the present invention is characterized by being equipped with an input means into which an initialization designating signal is input, an initialization means for initializing a storage medium loaded at a position to be designated, which corresponds to the above-mentioned initialization designating signal, to a prescribed format, a discharge means for discharging the storage medium from the above-mentioned position to be designated, a detection means for detecting the existence of the storage medium at the above-mentioned position to be designated, and a control means which operates the above-mentioned discharge means at the time of the input of the above-mentioned initialization designating signal and implements an initialization processing of the above-mentioned initialization means when reloading of the storage medium into the position to be designated is detected from the above-mentioned detection means.

(Operation)

According to the above-mentioned constitution, for example, in the device into which several storage media are loaded, if a loading position, which is considered that the storage medium to be initialized is loaded, is designated and a user inputs it into the input means, the storage medium loaded into the designated loading position, that is, the position to be designated is discharged by the discharge means. Thus, the user can directly confirm whether or not the storage medium discharged is the storage medium to be initialized. After the confirmation, when reloading into the above-mentioned position to be designated is carried out, a signal corresponding to reloading is generated by the detection means, and the initialization processing is implemented based on the signal by the initialization means.

Thus, in the above-mentioned constitution, since the storage medium of the position to be designated by the user is discharged prior to the initialization processing, the user can directly confirm whether or not errors exist in the designation, so that an erroneous operation of the initialization can be prevented and the confirmation work can also be simply carried out.

Also, even in the device having a single loading position of the storage medium, the storage medium is once discharged

similarly to the above-mentioned constitution, so that an erroneous operation of the initialization is prevented. In other words, in case the initialization is carried out during arithmetic processing, etc., while sequentially replacing several storage media at a single loading position, the initialization designating signal can have a signal constitution that does not include the designation of the loading position. Since the above-mentioned single loading position is designated as a position to be designated by the signal input, the storage medium loaded into the position is discharged similarly to the above-mentioned constitution, so that whether or not errors exist in the storage medium to be initialized can be easily confirmed. As a result, an erroneous operation of the initialization is prevented.

(Application example)

An application example of the present invention is explained as follows based on Figure 1.

As shown in Figure 1, several units of disk drives into which storage media 1 are respectively loaded are installed into a device 8 for initializing the storage media 1 consisting of floppy disks and photomagnetic disks, that is, driving devices 9. Also, an input device (input means) 6 into which an initialization designating signal is input by keys and an

/3



initialization implementing device (initialization means) 7 for initializing the storage media 1 loaded into the driving devices 9 designated by its initialization designating signal are installed. From the above-mentioned input device 6, along with a switching signal to an initialization processing mode, the number (#1, #2, etc.) of the driving device 9, which is considered that the storage medium 1 to be initialized is loaded, is input as an initialization designating signal by a user, so that the driving device 9 for an initialization processing is designated.

Furthermore, in the above-mentioned initializing device 8, a discharge mechanism (discharge means) 3 for discharging the storage medium 1 into which the designated driving device 9 is loaded and a loading detection mechanism (detection means) 2 for detecting whether or not the storage medium 1 is loaded into the driving device 9 are installed. Then, a control device (control means) 4 for controlling the operation of the discharge mechanism 3 and the initialization implementing device 7 as will be mentioned later is installed. Also, a display device 5 for displaying the current situation of the initializing device 8 and the instructions of the following operations to a user by using CRT, etc., is connected to the control device 4.

Next, the control sequence being carried out by the above-mentioned control device 4 is explained.

First, if a switching signal to an initialization processing mode and a signal corresponding to the number, for example, #2 of the driving device 9 selected so that a storage medium to be initialized by a user is loaded into it are input into the control device 4, the control device 4 displays "since the storage medium designated is discharged, reloading is required after confirming," and an operation signal is output to the discharge mechanism 3 to discharge the storage medium 1 loaded into the driving device 9 of the designated #2. Thus, the storage medium 1 loaded into the driving device 9 of #2 is discharged.

Then, when the storage medium 1 discharged by the user is reloaded into the driving device 9 of #2, a signal corresponding to the reloading of the storage medium 1 is input into the control device 4 by the loading detection mechanism 2. With the input of this signal, the control device 4 outputs a signal for instructing the initialization implementing device 7 to implement the initialization of the storage medium 1 loaded into the driving device 9 of #2, so that the above-mentioned storage medium 1 is initialized to a prescribed format by the initialization implementing device 7.

Thus, in the above-mentioned initializing device 8, the storage medium 1 loaded into the driving device 9 designated by the user is discharged once prior to the initialization processing. Thus, the user can directly confirm whether or not the storage medium 1 discharged is the storage medium to be initialized. After the confirmation, when the storage medium is reloaded into the above-mentioned driving device 9, the initialization processing is implemented. On the other hand, when the user confirms the discharged storage medium 1, if it is a storage medium different from the storage medium to be initialized, that is, if there is an error in the designation, the user carries out an initialization stop operation by the input device 6, so that the subsequent initialization processing is stopped. Thereby, the storage medium 1 is not initialized, even by reloading the discharged storage medium 1.

As explained above, in the above-mentioned application example, since the driving device 9 designated by the user, that is, the storage medium 1 loaded at the position to be designated is discharged once prior to the initialization processing, whether or not there is an error in the designation can be simply confirmed. As a result, the storage medium in which necessary data are recorded is prevented from being erroneously initialized, so that the data are prevented from being deleted

and the confirmation work can also be easily carried, compared with the prior art.

Also, in the above-mentioned application example, the device having several driving devices 9 has been explained as an example, however the present invention can also be applied to a device equipped with only one unit of disk drive, that is, a device having a single loading position of the storage medium, for instance. In this case, when the initialization is carried out during arithmetic processing, etc., while sequentially /4 replacing the storage mediums being loaded into a single driving device, since only the initialization processing mode switching signal containing no designation of the driving device is input as an initialization designating signal into the input device, the above-mentioned single driving device is automatically designated, and the storage medium loaded into the driving device is discharged. Thus, similarly to the above-mentioned case, with the stimulation of the confirmation about whether or not the storage medium to be initialized by the user has an error, the wrong initialization operation can be prevented, and the confirmation work is also easy.

(Effects of the invention)

As mentioned above, the device for initializing a storage medium of the present invention has a constitution equipped with

the input means into which an initialization designating signal is input, the initialization means for initializing a storage medium loaded at a position to be designated, which corresponds to the above-mentioned initialization designating signal, to a prescribed format, the discharge means for discharging the storage medium from the above-mentioned position to be designated, the detection means for detecting the existence of the storage medium at the above-mentioned position to be designated, and the control means which operates the above-mentioned discharge means at the time of the input of the above-mentioned initialization designating signal and implements an initialization processing of the above-mentioned initialization means when reloading of the storage medium into the position to be designated is detected from the above-mentioned detection means.

Thus, in the above-mentioned constitution, since the storage medium of the position to be designated by the user is discharged prior to the initialization processing, the user can directly confirm whether or not errors exist in the designation, so that an erroneous operation of the initialization can be prevented and the confirmation work can also be simply carried out.

4. Brief description of the figure

Figure 1 is a block diagram showing the device for initializing a storage medium in an application example of the present invention.

- 1 Storage medium
- 2 Loading detection mechanism (detection means)
- 3 Discharge mechanism (discharge means)
- 4 Control means (control means)
- 6 Input device (input means)
- 7 Initialization implementing device (initialization means)

第 1 図

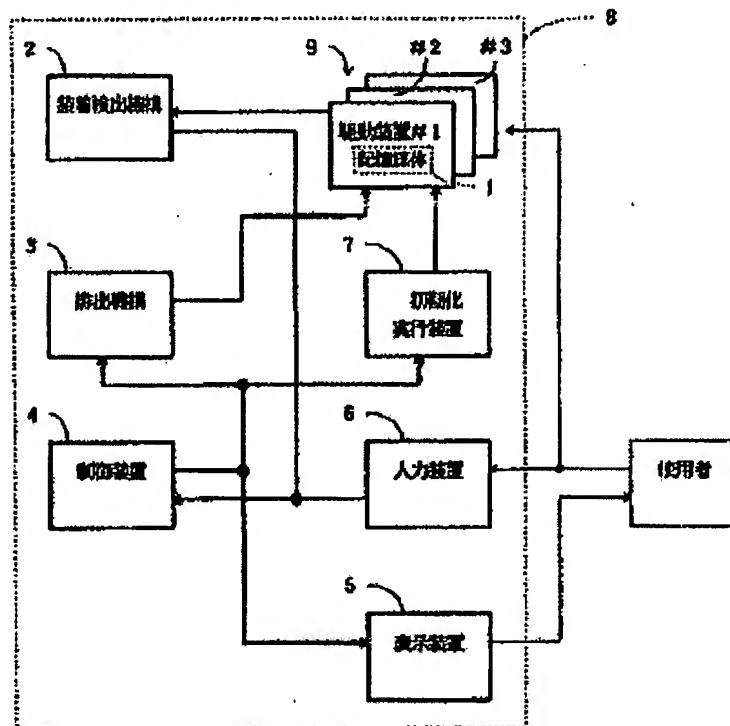


Figure 1:

- 1 Storage medium
- 2 Loading detection mechanism
- 3 Discharge mechanism
- 4 Control means
- 5 Display device
- 6 Input device
- 7 Initialization implementing device
- 9 Driving device #1
- A. User